

SEQUENCE LISTING

<110> The Regents of the University of California
Shokat, Kevan M.
Knight, Zachary

<120> Chemo-Enzymatic Process For Proteome-Wide Mapping of Post-Translational Modification

<130> 18062G-005410US

<140> US 10/539,217

<141> 2005-06-17

<150> PCT/ US2003/041118

<151> 2003-12-18

<150> US 60/434,696

<151> 2002-12-18

<160> 57

<170> PatentIn version 3.1

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<213> Artificial Sequence

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<223> Peptide containing a cysteic acid residue

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<222> (5)..(5)

<223> Xaa = cysteic acid

<400> 1

Leu Arg Arg Ala Xaa Leu Gly

1

5

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<223> Digested peptide fragment after cleavage with peptidyl-aspartate metalloendopeptidase (Asp-N)

<400> 2

Leu Arg Arg Ala

1

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<222> (8)..(8)
<223> Xaa = nitrotyrosine

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Glx Phe Arg Pro Xaa Gly Phe Xaa Glu
1 5

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<223> Xaa = phosphotyrosine

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<223> Peptide containing an aminoethylcysteine modification

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<223> Xaa = aminoethylcysteine (K*)

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Asn Lys Pro Pro Arg Xaa Pro Val Val Glu Leu Ser Lys

1 5 10

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<223> Peptide containing a phosphoserine

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<223> Xaa = phosphoserine

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<223> unmodified peptide

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Asn Lys Pro Pro Arg Ser Pro Val Val Glu Leu Ser Lys

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<223> Guanidinated MARCKS peptide

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<223> Xaa = guanidinylysine

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<223> Xaa = aminoethylcysteine (K*)

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<223> Xaa = guanidinylysine

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<223> Xaa = aminoethylcysteine (K*)

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<223> Xaa = guanidinylysine

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<223> Xaa = guanidinylysine

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Gly Phe Xaa Xaa Asn Xaa Xaa
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 <223> Xaa - aminoethylcysteine (K*)

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<223> Xaa = aminoethylcysteine

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Gly Phe Xaa

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<223> Xaa = aminoethylcysteine

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1 5 10 15

Gly Phe Xaa Phe Lys Lys Asn Lys Lys
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<223> Xaa = aminoethylcysteine

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<400> 13

Xaa Phe Lys Leu Ser Gly Phe Xaa
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Xaa Phe Lys Lys Asn Lys Lys
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Phe Lys Leu Ser Gly Phe Xaa Phe Lys Lys Asn Lys Lys
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Xaa	Phe	Lys	Lys	Xaa	Phe	Lys	Leu	Ser	Gly	Phe	Xaa	Phe	Lys	Lys	Asn
1				5					10					15	

Lys Lys

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Gly	Arg	Thr	Gly	Arg	Arg	Asn	Xaa	Ile	His	Asp	Ile	Leu
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Asp Leu Asp Val Pro Ile Pro Gly Arg Phe Asp Arg Arg Val Xaa Val
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Ala Ala Glu

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<223> Xaa = phosphoserine

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Ala Gln Ser Gly Leu Gly Cys Asn Ser Phe Arg Tyr
20 25

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<222> (4)..(4)

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Lys Arg Pro Xaa Gln Arg His Gly Ser Lys Tyr
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Leu Arg Arg Ala Xaa Leu Gly
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<400> 23

Glx Phe Arg Pro Xaa Gly Phe Tyr Asp
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Glx Phe Arg Pro Xaa Gly Phe Tyr Asp
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Lys Arg Xaa Ile Arg Arg
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 <223> Xaa = aminoethylcysteine

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 <222> (6)..(6)
 <223> Xaa = aminoethylcysteine

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 <222> (12)..(12)
 <223> Xaa = methionine sulfone

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Asp Ile Gly Xaa Glu Xaa Thr Glu Asp Gln Ala Xaa Glu Asp Ile Lys
 1 5 10 15

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 <212> PRT

<213> Artificial Sequence

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<223> Alpha-s1 casein peptide from co-digestion with trypsin and endopr
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<222> (3)..(3)

<223> Xaa = aminoethylcysteine

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<222> (9)..(9)

<223> Xaa = methionine sulfone

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5

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<223> Xaa = methionine sulfone

<400> 28

Xaa Thr Glu Asp Gln Ala Xaa Glu Asp Ile Lys

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10

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Val Pro Gln Leu Glu Ile Val Pro Asn Xaa Ala Glu Glu Arg
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Val Pro Gln Leu Glu Ile Val Pro Asn Xaa
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<223> Xaa = aminoethylcysteine

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<223> Xaa - aminoethylcysteine

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Xaa Xaa Xaa Glu Glu Ser Ile Thr Arg
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 <222> (17)..(19)
 <223> Xaa - aminoethylcysteine

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Arg Glu Leu Glu Glu Leu Asn Val Pro Gly Glu Ile Val Glu Xaa Leu
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Xaa Xaa Xaa

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 1 5 10 15

Xaa Xaa

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<222> (17)..(17)
<223> Xaa - aminoethylcysteine

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Arg Glu Leu Glu Glu Leu Asn Val Pro Gly Glu Ile Val Glu Xaa Leu
1 5 10 15

Xaa

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Arg Glu Leu Glu Glu Leu Asn Val Pro Gly Glu Ile Val Glu Xaa
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<210> 38
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Phe Gln Xaa Glu Glu Gln Gln Gln Thr Glu Asp Glu Leu Gln Asp Lys
1 5 10 15

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<223> Xaa - aminoethylcysteine

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Xaa Glu Glu Gln Gln Gln Thr Glu Asp Glu Leu Gln Asp Lys
1 5 10

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<220>
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Lys-C (Lys-C)

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<223> Xaa = N-acetyl-lysine (ac-K)

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<223> Xaa = aminoethylcysteine

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<223> Xaa = aminoethylcysteine

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<223> Xaa = aminoethylcysteine

<400> 40

Xaa Lys Lys Lys Lys Arg Phe Xaa Phe Lys Lys Xaa Phe Lys Leu Ser
1 5 10 15

Gly Phe Xaa Phe Lys Lys Asn Lys Lys
20 25

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Lys-C/(Lys-C)

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<223> Xaa = N-acetyl-lysine (ac-K)

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<223> Xaa = aminoethylcysteine

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<221> MISC_FEATURE
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1 5 10 15

Gly Phe Xaa

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Lys-C (Lys-C)

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<223> Xaa = aminoethylcysteine

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1 5 10

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Lys-C (Lys-C)

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Phe Lys Lys Xaa Phe Lys Leu Ser Gly Phe Xaa Phe Lys Lys Asn Lys
 1 5 10 15

Lys

<210> 45
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 Lys-C (Lys-C)

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<223> Xaa - aminoethylcysteine

<220>
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<220>
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Lys-C (Lys-C)

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<223> Xaa - aminoethylcysteine

<400> 46

Phe Lys Leu Ser Gly Phe Xaa
1 5

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Lys-C (Lys-C)

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Xaa Phe Lys Lys Asn Lys Lys
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<220>
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<400> 48

His His His His His His
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<223> Xaa - aminoethylcysteine (K*)

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Asn Lys Pro Arg Xaa Pro Val Val Pro Glu Leu Ser Lys
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<220>
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<400> 50

Pro Arg Xaa Pro Val Val Pro Glu Leu Ser Lys
1 5 10

<210> 51
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 <220>
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<400> 51

 Xaa Pro Val Val Pro Glu Leu Ser Lys
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<210> 52
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 <223> Xaa = beta-methyl aminoethylcysteine (K-T*)

<400> 52

 Asp Glu Met Glu Phe Xaa Glu Ala Ser Asn Met Asn
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